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ABSTRACT

An analysis comparing semi-annual statistics of interlibrary loan transactions to online literature searches from July 1973 to December 1977 was conducted at the Carl Campbell Brigham Library, a social science research library serving professional staff members of the Educational Testing Service (ETS). A highly significant correlation was found between the two variables. This created a problem for the ETS library in budgeting for increased demands on service; however, the effects of these increasing variables were minimized by changes in library policy and procedures. A charge back service for interlibrary loans was initiated to partially recover the costs. The solution was successful in two ways: it deterred unnecessary requests and enhanced the value of the service in the eyes of library patrons. Graphs and tables comparing completed interlibrary loan photoduplication transactions to completed online literature searches, costs for reference services from July 1973 to June 1977, the number of searches per data base in 1977, and references are appended. (Author/JPF)

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COMPUTER SEARCHING AND INTERLIBRARY LOANS:

WHERE'S THE CONNECTION?

BY

Anna Marie Keck McKee and Janet Williams

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

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Introduction

The development and implementation of computerized literature searching has made a major impact on library services during the last five years. The areas of operation and budget have felt the brunt of this change. A recent study by Martin[1] in an agricultural library found a definite relationship between an increase in computerized literature searches and an increase in interlibrary loan transactions. Our own comparison of interlibrary loan photoduplication statistics to computerized literature search statistics in the Carl Campbell Brigham Library, Educational Testing Service (ETS), happened independently of Martin's study, but agrees with her results. The increased volume of interlibrary loan photoduplication transactions also has the impact of raising library expenditures. We know that other libraries have noticed similar trends. The purpose of this paper is to discuss the relationship between the variables of interlibrary loan photoduplication statistics and computerized literature searches, and to present a solution from our own experience on how libraries can cope with rising costs due to these trends.

Background

The Carl Campbell Brigham Library, ETS, Princeton, N.J. is a special research library serving the 600 professional staff members of ETS. These staff members include researchers in the areas of human learning, human behavior, educational development and educational policy formation. We also serve program administrators in measurement and testing for schools and colleges, student guidance and placement, occupational licensing, and professional certification. The ETS library collection consists of 12,000 books, 500 periodical titles, 3,000 technical reports in the subject areas of testing, measurement, educational psychology and related social sciences. A complete collection of ERIC microfiche is housed in the ERIC Clearinghouse on Tests and Measurements near the library in the same building. The library staff includes two professional librarians and four library technicians. The ETS

Library was one of the first libraries to be involved with online literature searching. In 1972 the library used the PADAT system from Meade Data Central to search Psychological Abstracts. (No statistics are available from that time). In July 1973, the library became a user of the DIALOG system from Lockheed. Access to SDC/ORBIT was added in September 1975. NYT Information Bank and EDSTAT were added in November 1976 and March 1977, respectively.

Methods

Statistics were taken monthly of completed interlibrary loan photoduplication transactions and completed computerized literature searches from July 1973 to December 1977. Interlibrary loan photoduplication statistics were obtained by counting copies of completed request forms. The number of completed computerized literature searches was obtained from log sheets containing the names of users, data bases searched, online time, offline prints, and charges. Yearly costs of reference service including interlibrary loan were taken from fiscal year totals of the reference service budgeting classification. Six month totals of interlibrary loan photoduplication statistics and online literature search statistics were plotted on graphs to assess the pattern for the 4 1/2 year period from July 1973 to December 1977. Reference costs were also plotted over a four year period to show a pattern. A table of data bases searched from January 1977 to December 1977 was compiled to depict the variety of data bases searched by ETS staff.

Results

Figure I is a graph of the comparison of completed interlibrary loan photoduplication transactions to completed online literature searches for ETS staff over the 4 1/2 year period. (The month and year when the ETS Library started using DIALOG, SDC, NYT Information Bank, and EDSTAT is also recorded). With the exception of the first 12 months, the curves are dramatically similar in shape, they dip and peak at the same time. The two curves show a high correlation between interlibrary loan photoduplications and computerized liter-

ature searches. Using Pearson's product-moment correlation coefficient, r was .76 for all years and .81 for years from July 1974 to December 1977. Figure II shows the pattern of increasing reference service expenses. Table I shows that the ETS staff requested literature searches from 30 different data bases from January 1977 to December 1977. Nearly 50% of the searches were completed on Psych Abstracts or ERIC data bases.

Discussion

In figure I, the semi-annual totals of searches rise slowly and remain relatively stable until the January to June 1976 figure, where there is a sharp increase. The period of January to June 1977 shows a dramatic rise, and then the period from July to December 1977 drops slightly. An explanation for the slow rise may be that it took some time for the ETS staff to become aware of the service and for the librarians to become proficient with the system. The sudden increase of searches in 1976 and the dramatic increase of searches in 1977 may be explained by the following reasons: 1) The first two years of DIALOG searching was done primarily in Psychological Abstracts and ERIC. The additions of SDC, NYT Information Bank, EDSTAT systems to the Library service and the additions of data bases to SDC and DIALOG systems brought the total number of data bases of potential interest to ETS staff to nearly 30. (see Table I). Therefore, searches would increase as more data bases became accessible. 2) The number and types of users of the search service have increased as users recommended the service among themselves and the library staff spent more time in publicity. The first users were from research and test development departments of ETS. The availability of data bases other than ERIC and Psyc Abstracts attracted users from other departments at ETS such as: public information, legal, facilities and finance. 3) Computer searches were being requested for new purposes. The first users were concerned with doing retrospective bibliographic searches for research. Later, due to new features of

the systems and the availability of new data bases, searches were requested for current awareness, grant information, speech preparation, background for legal cases, facility planning and support for proposals.

The curve on figure I of the photoduplication statistics shows a decline in the first two years. An explanation for this phenomenon may be that almost all ETS searching was done in ERIC and Psych Abstracts. The acquisitions budget during that time was quite liberal. The library collection had most of the journals that staff members requested, and the library was able to acquire new journals as dictated by need. However, as the budget became more restricted, we could not continue to indefinitely expand the journal collection, and many of the requests were from far more exotic journals than we would desire to collect. This may account for the rise in interlibrary loan photoduplications after the first two years.

Our finding of the high correlation between search requests and interlibrary loan photoduplication requests supports those found by Martin.[1] It is worth noting that our library is a social science research library, while Martin's library is a science research library. Further substantiation of our findings comes from Richard Sweet[2] at ISI. After ISI sold SSCI and SCI tapes to SDC and Lockheed, their OATS/tear sheet orders rose 10 to 15 percent.

Interlibrary loan book requests were not plotted. They remained relatively stable over the same 4 1/2 year period. Over 95% of the material in data bases we searched comes from journal literature or technical reports, not books.

Problem: Better service costs money

The increasing costs called attention to the rise in interlibrary loan photoduplications. Fees for photoduplication had risen sharply. The increase in costs accentuated by our increase in requests was throwing our budget entirely out of line. The question now was "What are we going to do about it?" In a way we had become too successful. Our promotions for computer searching and good interlibrary loan service created demands for our service that we could

not fulfill with our budget and staff limitations. More staffing, and more money were not available.

Solution: Would they pay for interlibrary loan

The ETS Library has been successfully charging back for online literature searches since the service was initiated. The financial system is conducive at ETS to charging back for services as each activity has a special budget classification. Other special libraries with similar problems to ours may have initial difficulties instigating a charging back system for interlibrary loan, if their organization is tightly budgeted or there is no simple mechanism for transfering charges. In some organizations a years notice may have to be given to allow departments to budget for any library services. And, if there is no mechanism for charging back, it may be too costly for finance departments to process each charge. Our solution to the interlibrary loan problem was to initiate a charging back procedure. We began in August 1977 charging $2 per book and $5 per article. These fees partially recovered the costs of our services. The solution was successful in two ways.

First, it detered unnecessary requests. And secondly, it gave a feeling of value to those requests we still received.

In the beginning, the idea was met with some resistance. Some people felt they could procure articles more cheaply on their own by requesting reprints or making the trip to the library and xeroxing it for a nickle or a dime a page. This helped lower our work load and gave our patrons a feeling for the real cost in time, transportation, etc. in finding and coyping an article. Others were more selective about the articles they ordered. Before, we often went through a lot of work tracking down and securing an article only to find out the patron really wasn't that interested in it. Now we knew our work was appreciated and necessary.

Charging to discourage usage goes against the grain of a service oriented librarian. However, in retrospect, we feel it was a good idea. It increased the

value of the service in the eyes of our patrons. Putting a dollar figure on our work gave us a yardstick to measure our worth of the service. Were we spending more time than was beneficial on that service? Our patrons were giving us direct answers in continuing to request interlibrary loan service.

Summary

We found that there is a definite relationship between computerized literature searching and interlibrary loan photoduplication transactions. This created a problem for the ETS Library in budgeting for increased demands on service. Our patrons will probably continue to request items that exceed the sources of our library. This will be true especially if subscription prices continue to rise above and beyond the inflation rate. As this trend continues, the services of the interlibrary loan librarian will become more and more important. Information is only as useful as it is accessible. The value of the data bases depends on the availability of the information they abstract. If we cannot locate it, our patrons will become discouraged with our services.

CIS, ERIC, SSCI, and ASI each have an online ordering system for obtaining documents located through searches in these data bases. We found these services very useful in our library.

Our personal experience shows that charging back for interlibrary loan services initially decreases the immediate workload and enhances the value of the service in the eyes of our patrons. However, the interlibrary loan workload, even with the discouragement of charging is beginning to creep back to higher levels--showing the basic need for accessible information and the measurable value of information as a service.

A Comparison of Completed Interlibrary Loan Photoduplication Transactions to Completed Online Literature Searches from: July 1973 to December 1977

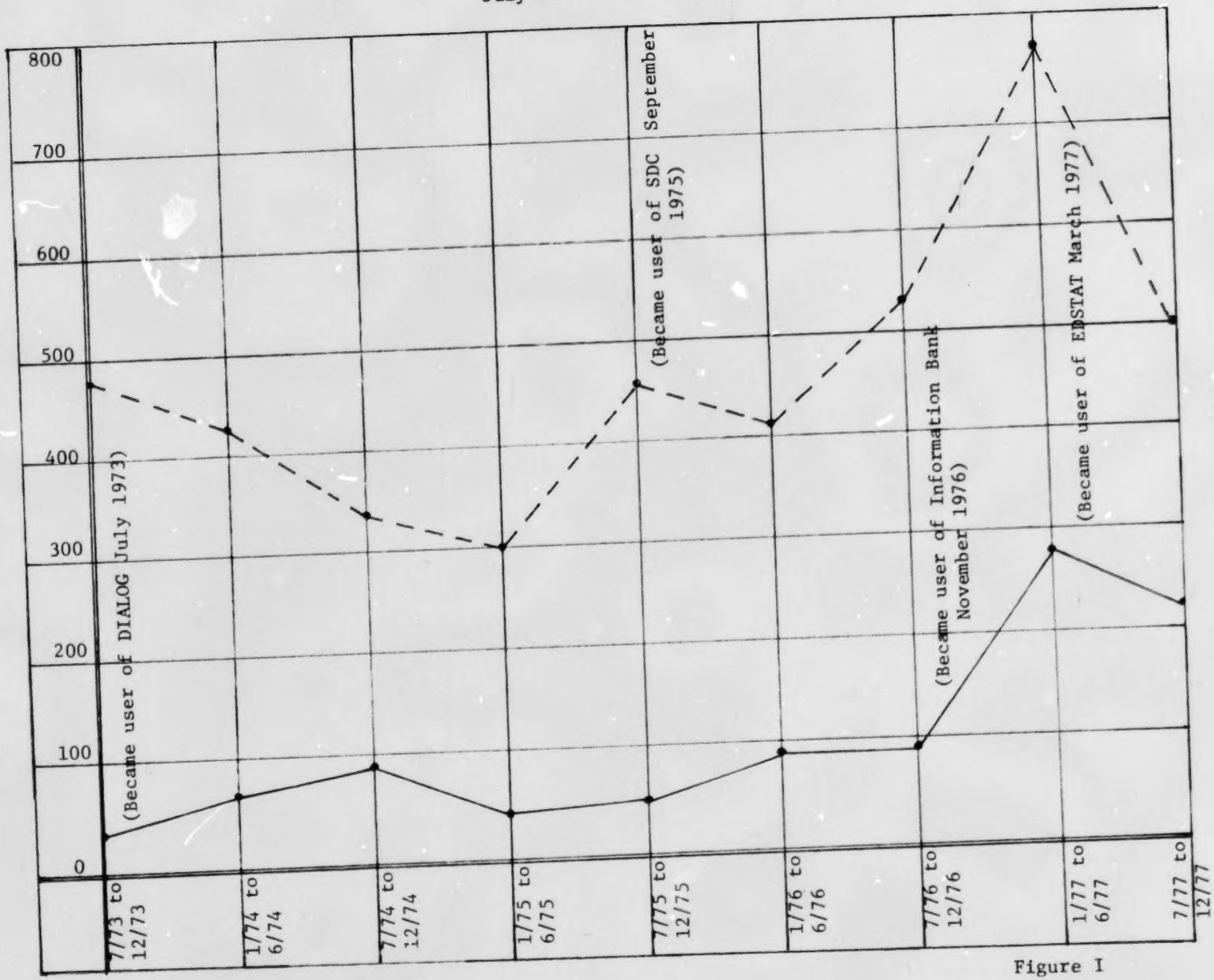

Figure I

Interlibrary Loans:--------

Online Searches:_____

Costs for Reference Service
At ETS Library from:
July 1973 to June 1977

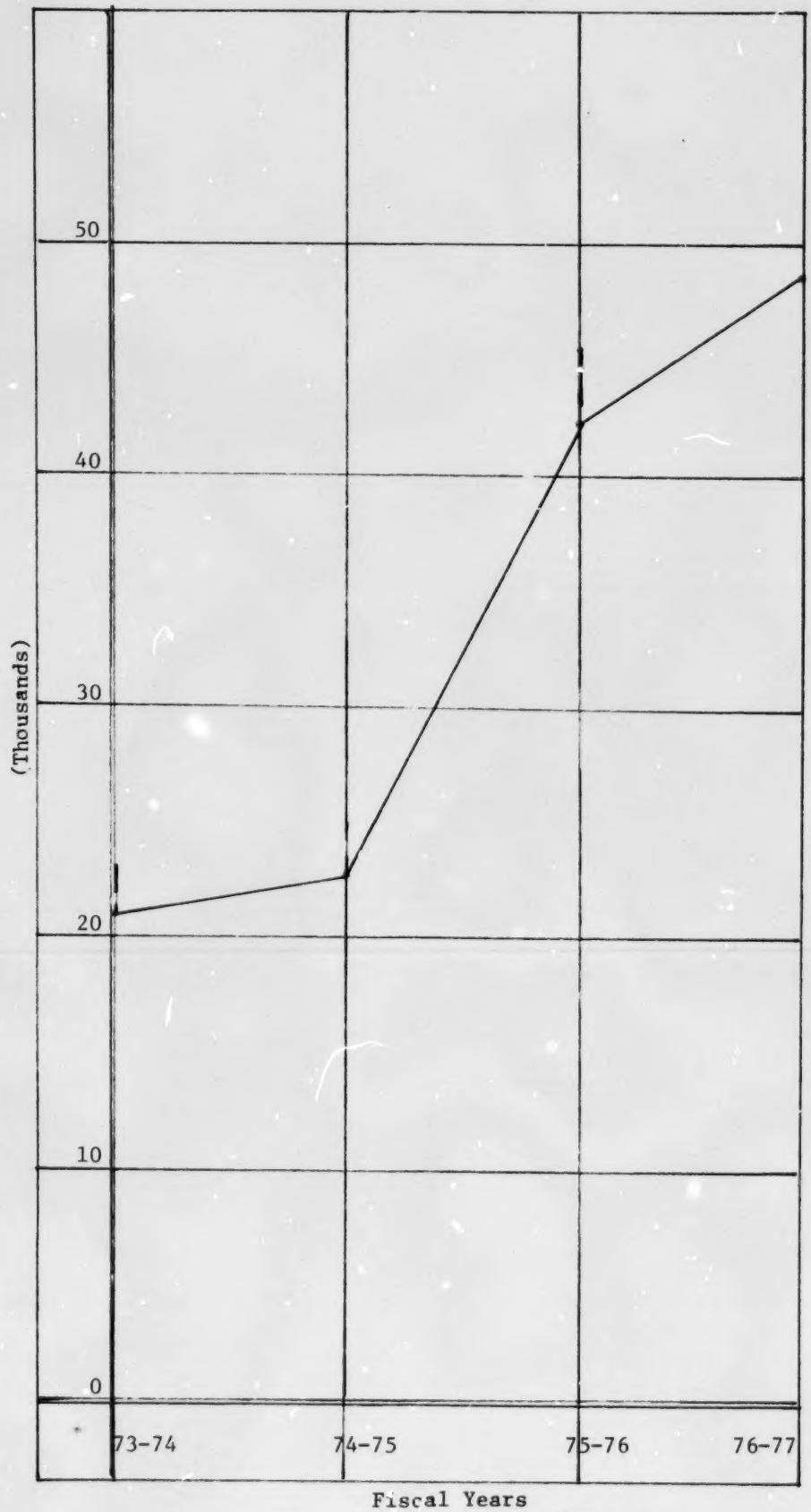

Figure II

Data Bases Searched for ETS Staff
From January 1977 to December 1977
Table I

Data Bases	Number of Searches
ERIC	158
Psychological Abstracts	119
Dissertations Abstracts	40
Sociological Abstracts	38
ABI Inform	29
NTIS	28
Exceptional Child	26
NYT Information Bank	25
Smithsonian Scientific Information Exchange	17
Social Science Citation Index	15
Foundation Grants	14
Congressional Information Service	11
LIBCON	6
Science Citation Index	5
BIOSIS	5
Federal Index	4
LLBA	4
AGRICOLA	3
American History and Life	3
EDSTAT	3
INSPEC	3
NICHEM	3
PAIS	3
MEDLINE*	3
GRANTS	2
Historical Abstracts	2
ASI	1
COMPENDEX	1
CRECORD	1
Management	1

*Medline searches were done at E.R. Squibb Co.

REFERENCES

[1] Both authors contributed equally.

[2] Martin, Jean K / Computer-Based Literature Searching; impact on interlibrary loan service. Special Libraries 69 (no.1): 1-6 (Jan 1978)

[3] Richard Sweet, Personal communication, Feb. 1, 1978.